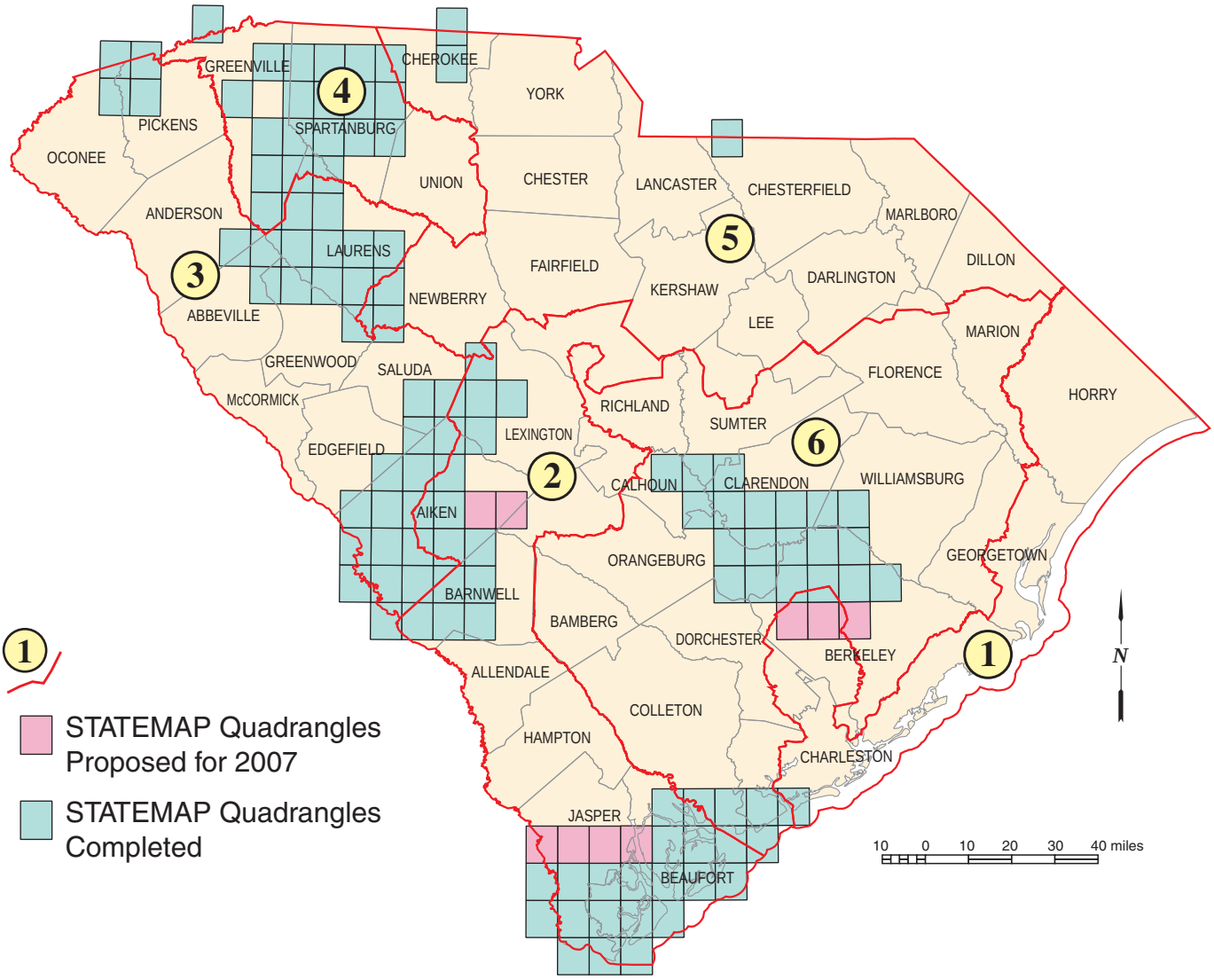
Association of American State Geologists

United States Geological Survey

National Cooperative Geologic Mapping Program

STATEMAP Component: States compete for federal matching funds for geologic mapping

SOUTH CAROLINA



Contact Information

South Carolina Geological Survey
State Geologist and Chief:
C. W. Clendenin, Jr. (803-896-7702)
STATEMAP Contact:
Scott Howard (803-896-7712)
http://www.dnr.sc.gov/geology

U.S.G.S. Geologic Mapping Program Office
Program Coordinator:
Peter T. Lyttle (703-648-6909)
Associate Program Coordinators:
Randall C. Orndorff (703-648-4316)
Laurel M. Bybell (703-648-5281)
http://ncgmp.usgs.gov/

Summary of STATEMAP Geologic Mapping Program in SOUTH CAROLINA

FFY	7.5-minute Quadrangles Mapped	State Dollars	Federal Dollars	Total Dollars
1993	Ware Shoals East	$18,000.00	$18,000.00	$36,000.00
1994	Laurens South, Clinton, Cross Hill	$25,000.00	$25,000.00	$50,000.00
1995	Dyson, Cokesbury, Waterloo, Bush River, Joanna	$15,000.00	$15,000.00	$30,000.00
1996	Laurens North, Chappells, Shoals Junction	$116,000.00	$116,000.00	$232,000.00
1997	Paris Mountain, Pelham, Inman, Valley Falls, Wellford, Reidville, Lone Star, Fort Motte, Pinewood, Saint Paul	$110,372.00	$110,372.00	$220,744.00
1998	Tigerville, Greer, Campobello, Fountain Inn, Elloree, Summerton, Pageland (SC)	$87,570.00	$87,570.00	$175,140.00
1999	Edisto Beach, Edisto Island, St. Helena Sound (N 1/2), Fork Shoals, Woodruff, Hickory Tavern	$107,959.00	$102,000.00	$209,959.00
2000	St. Helena Sound (S 1/2), Frogmore, St. Phillips Island, Fripps Inlet, Parris Island (E 1/2), Pacolet, Cowpens, Moore, Mauldin	$139,313.00	$114,197.00	$253,510.00
2001	Bluffton, Spring Island, Parris Island (W 1/2), Jasper, Glenn Springs, Moore	$160,804.00	$160,742.00	$321,546.00
2002	Pritchardville, Hilton Head, Tybee Island North, Fort Pulaski, Savannah, Spartanburg, Simpsonville, (*revised for 100k compilation:* Cowpens*, Pacolet*, Moore*, Reidville*, Pelham*, Fountain Inn*, Fork Shoals*)	$200,540.00	$200,000.00	$400,540.00
2003	Honea Path, Ware Shoals West, Mauldin, Beaufort, Bennetts Point, Wiggins, Dale, Jordan, Ware Shaols East*, Hickory Tavern*, Woodruff*, Greer*, Frogmore*, Edisto Island*, Edisto Beach*, St. Helena Sound*, Lonestar*, Elloree*, Fort Motte*	$230,358.00	$230,358.00	$460,716.00
2004	Eastatoe Gap (S 1/2), Sunset (N 1/2), Salem (N 1/2), Limehouse, Hardeeville, Port Wentworth (E 1/2), Rincon (E 1/2), Butlers Bay, Pineville, Blacksburg South)	$231,692.00	$228,584.00	$460,276.00
2005	Lake Murray West, Foxtown, Ridge Spring, Monetta, Steedman, Greeleyville, St. Stephens, Eadytown, Reid, Trenton*, Aiken NW*, Standingstone Mountain*	$222,716.00	$222,716.00	$445,432.00
2006	Aiken, Batesburg, Gilbert, Barr Lake, Bonneau, Cross, Chicora, Alvin, Rockville, Augusta East*, Hollow Creek*, New Ellenton*, Windsor*, Williston*	$208,627.00	$208,627.00	$417,254.00
2007	Holly Hill, Sandridge, Vance, Eutawville, Emory, North Augusta, Graniteville, Oakwood, Mechanic Hill*, Jackson*, New Ellenton SW*, New Ellenton SE*, Long Branch*, Shell Bluff Landing*, Girard NW*, Girard NE*, Snelling*	$226,172.00	$226,172.00	$452,344.00
	TOTALS	$2,100,123.00	$2,065,338.00	$4,165,461.00

*STATEMAP funded digitization of an existing map

By placing emphasis on the socio-economic needs for new geologic information, the STATEMAP component of the National Cooperative Geologic Mapping Program compliments the legislatively mandated duties of the South Carolina Department of Natural Resources, Geological Survey (SCGS). SCGS duties include geologic reconnaissance, mapping, and gathering of surface and subsurface data. The information gathered is applied to other legislatively defined duties involving advice and assistance to other State and local government agencies engaged in environmental protection, regional planning, effective land use, and economic development.

STATEMAP awards allow Federal dollars to be used by the SCGS to address socio-economic needs for geologic information on the county and local level. Original projects addressed identification and economic development of mineral resources in the Piedmont. Expansion of mapping into the Coastal Plain over the past 10 years has provided the first, detailed 1:24,000-scale maps of the area around the Pinewood toxic waste dump on the northern shore of Lake Marion. By the end of 2007, new maps covering the entire Lake Marion and Lake Moultrie area will be available. During the 1996-1997 period, mapping in the Piedmont was redirected to address land-use planning adjacent to the I-85 growth corridor in Greenville and Spartanburg Counties. In 2002 structural information generated by part of that mapping was applied to understanding the controls of uranium-contaminated groundwater in the Simpsonville-Fountain Inn area. The information continues to assist SCDHEC in more detailed studies of water quality in the Inner Piedmont. In 1998 a five-year plan to map the southern coast from Edisto Island to the Savannah River was developed. New 1:24,000-scale maps in an electronic format now are available for the southern coast from Edisto Beach to the Savannah River and inland to Hardeeville. Maps of the ACE Basin area were subsequently photo-revised to help document physical change.

Prior to 2002 land-use planning and environmental protection were given priority in STATEMAP projects. Earthquake awareness and the impact that such a catastrophe would have on critical infrastructure were basically left to the S.C. Emergency Preparedness Division. After splay faults related to the Eastern Piedmont fault system were recognized underlying the high-risk, earthen Lake Murray dam and FERC demanded a $250-million-plus retrofitting project, priorities were reevaluated. Since 2002 mapping has focused on known fault zones in the Piedmont and Coastal Plain, which could affect metropolitan areas. The geology of the Savannah River Site also will be digitized as part of this new priority. Mapping in the Jocassee Gorges area is being used to develop a management plan. The primary goal was to delimit specific rock types that influence the location sensitive ecosystems. When uranium contamination was identified in water samples from the Devils Fork area, emphasis also was placed on identifying the fault/fracture system. The Mountain Bridge compilation that covers the Jocassee Gorges also will be available by the end of 2007.

The benefits of STATEMAP include the development of digital geologic information. The new information can be used by many diverse interests or for specific purposes without significantly diminishing the value received by all. There continues to be a defined need for a government-based mapping program as it affects the quality of life of individual citizens, as well as the State's economic growth, emergency response, natural resource management, and environmental monitoring. What organization, other than a government agency, could collect, analyze, update, revise, and maintain the information necessary to produce the maps, while not trying to develop a profit? Secondly, STATEMAP has enabled the SCGS to develop a highly professional GIS product refinement program. This program is now producing and distributing a new generation of digital map products with expanded explanations and cross sections. It is in the best interest of South Carolina to be involved in STATEMAP because it makes geologic map information widely available at low cost and because the availability of such information maximizes the benefits and opportunities for all citizens and businesses.

05/29/2007